

**Abstract**

The present invention provides novel members of the family of deubiquitinating enzymes (DUBs) as well as biologically, diagnostically or therapeutically useful fragments, derivatives, and homologues thereof, which are useful in research, biological, clinical, therapeutic as well as prognostic and diagnostic purposes. Furthermore, the polynucleotides and polypeptides provided by the present invention are useful for the treatment and diagnosis of breast cancer, leukemia or brain disorders.